IN THE CLAIMS (Examiner's Use Only)

1. (Currently Amended) A smart container assembly comprising:

a hermetically sealed storage cavity;

a monitoring assembly ~~positioned outside of the hermetically sealed storage cavity and~~ including

a sensing mechanism;

an I/O interface;

and a recording mechanism electrically coupled to both the sensing mechanism and the I/O interface for recording data obtained from both the sensing mechanism and the I/O interface,

wherein the monitoring assembly is positioned outside of the hermetically sealed storage cavity in an environment that is sealed off from and different than the environment inside of the hermetically sealed storage cavity.

2. *(Previously Amended) The assembly of claim 1 wherein the recording mechanism comprises at least a first sub-mechanism and a second sub-mechanism wherein the first sub-mechanism is electrically coupled to the sensing mechanism and the second sub-mechanism is electrically coupled to an input portion of the I/O interface.*

3. *(Previously Amended) The assembly of claim 2 wherein the I/O interface comprises a first sub interface electrically coupled to the first sub-mechanism of the recording mechanism and a second sub interface coupled to the second sub-mechanism of the recording mechanism.*

4. *(Original) The assembly of claim 1 wherein the container assembly further comprises a monitoring assembly receiving cavity sized and dimensioned to receive and retain the monitoring assembly, the receiving cavity having an environment more similar to the*

environment of the storage cavity than to the environment outside of the container assembly in regard to at least one condition the monitoring assembly is designed to monitor.

5. *(Original) The assembly of claim 1 wherein the container assembly further comprises a monitoring assembly receiving cavity sized and dimensioned to receive and retain the monitoring assembly, the receiving cavity protruding into but being hermetically isolated from the storage cavity.*

6. *(Original) The assembly of claim 5 wherein the container further comprises an orifice providing an inlet into the storage cavity, a dip tube assembly retained by the orifice and extending into the storage cavity, and a seal cap, wherein the dip tube assembly and seal cap cooperate in hermetically sealing the orifice.*

7. *(Original) The assembly of claim 6 wherein the removal of the seal cap and/or dip tube assembly is the only way to break the hermetic seal of the storage cavity without creating a new opening into the storage cavity.*

8. *(Original) The assembly of claim 7 wherein the seal cap may be removed without breaking the hermetic seal between the dip tube assembly and the container, removal of the seal cap providing an outlet for any material stored in the storage cavity from the storage cavity, wherein any material flowing out of the storage cavity through the opening created by removal of the seal cap must flow through the dip tube of the dip tube assembly.*

9. (Currently Amended) A smart container assembly comprising:

a storage container that includes a monitoring assembly receiving cavity, a dip tube orifice, an outer wall surrounding and defining a storage cavity;

a dip tube assembly hermetically sealed to the perimeter of the dip tube orifice;

a monitoring assembly positioned and removably retained within the monitoring assembly receiving cavity; and

a dip tube seal cap positioned within and hermetically sealed to an end of the dip tube assembly, the dip tube assembly and seal cap hermetically sealing the storage cavity,

wherein the monitoring assembly is positioned outside of the hermetically sealed dip tube in an environment that is sealed off from and different than the environment inside of the hermetically sealed storage cavity.

10. *(Previously Amended) A method of transporting a material comprising:*

providing the smart container assembly of claim 1;

placing the material to be transported within the container assembly;

transporting the container assembly containing the material to be transported; and

electronically querying the container assembly for information related to the contents or transportation of the container assembly.

11. *(Original) The method of claim 10 further comprising electronically recording, prior to transportation of the container assembly, data relating to the material to be transported within the container assembly.*

12. *(Original) The method of claim 11 wherein electronically querying the container results in the container providing at least some of the electronically recorded data relating to the material transported within the container assembly.*

13. *(Original) The method of claim 10 wherein electronically querying the container results in the container providing information relating to the conditions the material was subjected to during transportation.*

14. *(Original) The method of claim 10 further comprising, after transportation of the container assembly, coupling the container to a processing unit programmed to query the*

container for information relating to both the material transported within the container assembly and the conditions the material was subjected to during the transportation, and also programmed to use the material within the container assembly only if the contents and handling of the container assembly meet a standard programmed into or obtainable by the processing unit.

15. *(Original) The method of claim 14 wherein placing the material within the container assembly comprises at least partially hermetically sealing an opening into a storage cavity containing the material with a dip tube assembly extending into the storage cavity.*

16. *(Original) The method of claim 15 wherein the material placed within the container assembly is a spin-on material.*

17. *(Original) The method of claim 16 wherein the material placed within the container assembly is a glass or organic polymer.*